Properties of Common Solvents

Solvent	Chemical Formula	Mol. Weight	Boiling point (°C)	Melting point (°C)	Flash point (°C)	Density (g/ml)	Ref. Index	Polarity	Dielectric constant	LD50(g/kg oral-rat)	Alternate names
Acetic acid	CH_3-C(=O)OH	60.1	118	16.7	39	1.053	1.317	0.648	6.2	3.3	
Acetone	CH_3-C(=O)-CH_3	58.1	56.5	-94.3	-18	0.788	1.359	0.355	21	9.8	
Acetonitrile	CH_3-C N	41.0	81.6	-45	6	0.787	1.339	0.46	37	3.8	
Benzene	C_6H_6	78.1	80.1	5.5	-11	0.879	1.501	0.111	2.3	4.9	
Carbon tetrachloride	CCl_4	153.8	76.7	-22.8		1.589	1.461	0.052		2.8	tetrachloromethane
Chloroform	$CHCl_3$	119.4	61.2	-63.5		1.485	1.442	0.259	4.8	1.2	trichloromethane
Cyclohexane	C_6H_{12}	84.2	80.7	6.6	-18	0.778	1.424	0.006		13	
Dichloromethane	CH_2Cl_2	84.9	39.8	-95.1		1.326	1.424		9.1		methylene chloride
Diethyl ether	CH_3CH_2-O-CH_2-CH_3	74.1	34.6	-116.3	-45	0.715	1.352	0.117	4.3	1.2	
Diethylene glycol	$C_4H_{10}O_3$	106.1	245	-6.5	124	1.118	1.445	0.713		13	
Dimethyl sulfoxide	CH_3-S(=O)-CH_3	78.1	188	18.5	89	1.092	1.476	0.444	47	18	
Dimethylformamide	H-C(=O)N$(CH_3)_2$	73.1	153	-61	58	0.944		0.404	38	2.8	
Ethanol	CH_3-CH_2-OH	46.1	78.5	-114.1	14	0.789	1.359	0.654	24	7.1	ethyl alcohol
Ethyl acetate	CH_3-C(=O)-O-CH_2-CH_3	88.1	77	-83.6	-4	0.898	1.370	0.228	6	11	
Ethylene glycol	$C_2H_6O_2$	62.1	197.2	-13.5	111	1.115	1.429	0.79		4.7	
Formic acid	H-C(=O)OH	46.0	100.8	8.4	69	1.220			58		
Glycerol	$C_3H_8O_3$	92.1	290	17.8	160	1.265		0.812		13	
Heptane	CH_3-CH_2-CH_2-CH_2-CH2-CH_2-CH_3	100.2	98.4	-90.7	-4	0.684	1.385	0.012			
Hexane	CH_3-CH_2-CH_2-CH_2-CH_2-CH_3	86.2	68.7	-95	-23	0.659	1.375	0.014	2	29	
Isopropanol	CH_3-CH(-OH)-CH_3	60.1	82.4	-89	12	0.786	1.376	0.389	18	3.5	isopropyl alcohol
Methanol	CH_3-OH	32.0	64.7	-97.8	12	0.787	1.326	0.762	33	5.6	methyl alcohol
Methyl ethyl ketone	C_4H_8O	72.1	79.6	-86.4	-9	0.805	1.379	0.327		2.7	2-butanone
n-Butanol	CH_3-CH_2-CH_2-CH_2-OH	74.1	117.6	-89.5	-15	0.810	1.399	0.602	18	0.79	butyl alcohol
n-Propanol	CH_3-CH_2-CH_2-OH	60.1	97	-126	15	0.803		0.617	20	1.9	
Tetrahydrofuran	/-CH_2-CH_2-O-CH_2-CH_2-\	72.1	66	108.5	-21	0.888	1.407	0.207	7.5	2.8	
Toluene	C_6H_5-CH_3	92.1	110.7	-94.7	4	0.867	1.497	0.099	2.4	5	methyl benzene
Water	H-O-H	18.0	100	0		1.000	1.333	0.998	80		
Xylene	C_6H_4-$(CH_{3)2}$	103.2	138.3	13.3	27	0.861	1.493	0.074		5	